REMARKS

The Office Action dated May 12, 2005 has been received and carefully noted. The period for response having been duly extended from August 12, 2005 to September 12, 2005 the attached Petition for Extension of Time, the above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1, 31 and 40 have been amended. No new matter has been added, and no new issues are raised which require further consideration and/or search. Claims 1-48 are submitted for consideration.

Claims 1-48 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Publication No. 2002/0174335 to Zhang et al. The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of features clearly recited in independent claims 1, 31 and 40.

Claim 1, upon which claims 2-30 depend, recites in a communication system including at least one network, including network entities which provide connectivity to user equipment, a method of connecting the user equipment to the at least one network includes establishing a secure tunnel which provides connection between the user equipment and one of the network entities. The method also includes authenticating the user equipment with another of the network entities. The authenticating of the user equipment with another of the network entities occurs at least partially simultaneously

with a phase of the establishing of the secure tunnel, wherein the phase is determined based on a protocol or authentication method.

Claim 31, upon which claims 32-39 depend, recites a communication system including at least one network, including network entities which provide connectivity to the user equipment. A secure tunnel is established which provides connection between the user equipment and one of the network entities. The user equipment is authenticated with another of the network entities. The authenticating of the user equipment with another of the network entities occurs at least partially simultaneously with a phase of the establishing of the secure tunnel. The phase is determined based on protocol or authentication method.

Claim 40, upon which claims 41-48 depend, recites a user equipment in a communication system including at least one network, including network entities which provide connectivity to the user equipment. A secure tunnel is established which provides connection between the user equipment and one of the network entities. The user equipment is authenticated with another of the network entities, and the authenticating of the user equipment with another of the network entities occurs at least partially simultaneously with a phase of the establishing of the secure tunnel, wherein the phase is determined based on a protocol or authentication method.

As will be discussed below, the cited prior art reference of Zhang et al. fails to disclose or suggest the elements of any of the presently pending claims.

Zhang et al. relates to an IP-based authentication, accounting and authorization scheme for wireless local area network (LAN) virtual operators. Zhang et al. describes mobile users accessing the internet and local network services at hot spots, such as airports, hotels or coffee shops. The internet service providers of the mobile users are used as the single point of contact for all authentication, accounting and authorization (AAA) transactions. Referring to Figure 1 of Zhang et al., a mobile terminal 110 communicates with a wireless LAN access point 120. Zhang et al. describes access point 120 controlling the authentication by mobile terminal 110. Figure 2 of Zhang et al. shows access point 120 assigning mobile terminal 110 a dynamic IP address. The user initiates a login session with the ISP. The ISP id and the user id are sent to access point 120. Access point 120 sends the user's authentication server an access-request packet 210 with the user id. RSP 150' makes a validity determination with respect to the user id contained in the access-request packet 210. Zhang et al. describes a filtering function installed on every access point 120 to filter all mobile traffic and determine whether the traffic should be let through or blocked. IPSEC is used between access points and mobile terminals for per-packet authentication or per-packet encryption. A packet filtering function employed at an access point serves as a transparent mechanism for controlling not only authentication and authorization, but also packet level accounting. With a mutual proof mechanism, Zhang et al. describes avoiding potential accounting disputes without requiring all mobile traffic to go through a central entity.

Applicant submits that Zhang et al. fails to teach or suggest each element of the presently pending claims. Claims 1, 31 and 40 recite, in part, authenticating of the user equipment with another of the network entities occurs at least partially simultaneously with a phase of the establishing of the secure tunnel, wherein the phase is determined based on a protocol or authentication method. Zhang et al. fails to disclose or suggest the authenticating of the user equipment occurring at least partially simultaneously with a phase of the establishing of the secure tunnel, wherein the phase is determined based on a protocol or authentication method as recited in claims 1, 31 and 40. As noted in paragraph [0069] of the present invention, "[depending] on the first phase authentication signalling system, Phase II can be started in different phases of the Phase authentication (as in Figs. 7-12). How to combine the phases depends on the protocols and authentication methods." Applicant submits that Zhang et al. fails to disclose or suggest this feature of the present invention because the IPSEC process of Zhang et al. occurs in a fixed manner for every authorization. Applicant submits that IPSEC in Zhang et al. is not dynamic in allowing the authenticating step to occur in different phases of the mutual proof mechanism. Thus, Applicant respectfully asserts that the rejection under 35 U.S.C. §102(e) should be withdrawn because Zhang et al simply fails to teach or suggest each feature of claims 1, 31 and 40 and hence, dependent claims 2-30, 32-39 and 41-48 thereon.

As noted previously, claims 1-48 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore

respectfully requested that all of claims 1-48 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosure: Petition for Extension of Time (1 month)